

Syllabus: ASTR 202 Spring 2021

Life in the Universe

Section 002: TTh 12:30-1:45pm

Zoom:

<https://arizona.zoom.us/j/86942678387>

Password: 1420.40575

1. Instructor

Name	Office Hours	Email
Professor: Chris Walker	MF 2-3	cwalker@as.arizona.edu
TA: Samantha Scibelli	MW 3-4	sscibelli@email.arizona.edu

Please let the instructor know in advance if you plan to attend office hours and a Zoom link will be sent to you.

The course website can be found at <http://www.d2l.arizona.edu>.

2. Learning Objectives

The goal of this course is for the student to gain a better understanding of life in the Universe and insight into the inter-relationship between different fields of scientific exploration (e.g., astronomy, geology, biology, anthropology, and engineering). In this course you will learn about where we come from and where we are going and the chance of meeting other travelers along the way.

3. Prerequisites

Either NATS 101 or NATS 102 or ASTR 170A, 170B, or 170C.

4. Course Work and Grading Policies

Grading will be based on a percentage of final points as follows:

90-100%	A
80-89.9%	B
70-79.9%	C
60-69.9%	D

The percentage breakdown will be as follows:

4 midterms	40%
In-class quizzes	30%
1 creative project	10%
4 take-home labs	20%
extra credit	0.5% each, up to 3%

5. Required Exams

There are four **midterms and no final**. The lowest midterm score will be dropped. There are no make-up exams, except with a written University or doctor's excuse.

Dates:

Midterm 1: Thursday, February 11th

Midterm 2: Tuesday, March 16th

Midterm 3: Thursday, April 15th

Midterm 4: Tuesday, May 4th

6. Creative Project

An important component of the class is the **creative project**. The creative projects will be chosen by the student, with prior approval by the instructor. We suggest these projects relate to your foremost area of academic interest, as well as the course theme. Most students choose to write a term paper (~10 pages), but original videos, experiments, etc., are encouraged. **Abstracts** stating the nature of your project should be submitted to d2l **on or before March 2nd**. The **final project** is due **April 27th, 2021**.

7. Lab Exercises

There will be 4 take-home **lab exercises**. Every student is expected to do each lab exercise. Each lab exercise will be worth 5% of your final grade. The midterms may have questions on them pertaining to the lab exercises, so you should be sure to understand what you turn-in. These labs will be assigned in class and are to be turned-in on D2L by the date specified in class. **NO LATE WORK WILL BE ACCEPTED.**

8. In-Class Quizzes

A short **in-class quiz** will be given at the beginning of most classes. The quiz will contain 1 or 2 questions concerning the material presented in the previous lecture. For the quiz to count, you must be present for the entire lecture. The quizzes will count toward 30% of your final grade.

9. Extra Credit

For extra credit, students may propose to write a short (~2 page) report or conduct an experiment concerning a course related topic they find particularly interesting. Please check with the instructor beforehand to make sure the subject matter will be acceptable.

10. Course Materials

Things you may want to have in order to make the course easier:

1. A calculator with scientific notation
2. A ruler
3. An inquiring mind

11. Absence Policies

Attending class and taking notes is an essential part of this course. The student is responsible for all material covered during the lectures. Missing lecture on a regular basis is likely to result in a lower grade, because of missed material and missed Readiness Quizzes. Absences for holidays or special events observed by organized religions will be excused for those students who show affiliation with that particular religion. Absences pre-approved by the UA Dean of Students (or Dean's designee) will also be excused. If you miss a quiz for one of these two reasons, we will make sure that it does not count against you. Please let us know in advance with an e-mail that you will be missing class. Should you have a conflict with the midterm dates, for one of these reasons, please see us know immediately.

12. Academic Integrity

In science, we depend on good faith efforts to report as fully and accurately as possible observations, measurements, and experiments. Presentation of any work other than your own is considered academic dishonesty. This includes copying assignments from others and any other form of cheating or plagiarism. Note in particular that if you substitute a prediction, however derived, for an actual observation or measurement, you are guilty of scientific fraud. We expect that all of the work you present for evaluation is in fact your own and that you will not give or receive unauthorized assistance in any academic exercise. Be careful of collaborations in which each participant does not contribute the full quota of independent work. If any penalty has to be assessed for a breach of integrity, the

University requires official reports to be made to protect the rights of everyone involved. Expect University policy to be followed strictly in all matters of academic integrity.

13. Accessibility and Accommodation

At the University of Arizona, we strive to make learning experiences as accessible as possible. If you anticipate or experience barriers based on disability or pregnancy, please contact the Disability Resource Center (520-621-3268, <https://drc.arizona.edu>) to establish reasonable accommodations.

14. Classroom Behavior

Please do your best to arrive on time. Do not come to class just to take the In-Class Quiz and leave. The Quiz is used as an attendance record. If you turn in a quiz, it means you will be present for the whole class; otherwise, it will not be counted. As a courtesy to your fellow students and the instructor, please mute your Zoom unless you are speaking

15. Approximate Course Outline and Calendar

Week 1: From Big Bang to Atoms
Week 2: From Molecules to Stars
Week 3: Planet Formation; Earth's Origins
Week 4: The Primordial Soup
Week 5: Extrasolar Planets
Week 6: Life in the Solar System
Week 7: Darwinian Evolution
Week 8: Origin of Intelligence
Week 9: Human Evolution
Week 10: Lifetime of a Civilization
Week 11: How many others are out there?
Week 12: How will we communicate with them?
Week 13: Interstellar Conquest
Week 14: First Contact
Week 15: Review

Lectures are subject to change depending on the pace of the class.